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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,484	10/02/2003	David R. Hall	66.0036	2483

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EXAMINER

BOCHNA, DAVID

ART UNIT	PAPER NUMBER
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3679

DATE MAILED: 09/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/605,484

Applicant(s)

HALL ET AL.

Examiner

David E. Bochna

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the subject matter of claims 11-17 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected for minor informalities. 17 in fig. 1 and fig. 4 are pointing at two different elements of the invention.

Oath/Declaration

3. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

It does not identify the city and either state or foreign country of residence of each inventor. The residence information may be provided on either on an application data sheet or supplemental oath or declaration.

Also Applicants' signatures and signing dates are missing.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1, 15 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In regard to claims 1 and 20, it is unclear how a volume can fail the secondary shoulder during an overload condition. Second, because the overload condition is not defined, it is unclear how much volume would constitute 50% or less. As the undefined overloading force is increased, the permissible volume would have to decrease in order to satisfy the 50% or less requirement. The two unknown variables make the claims indefinite.

Claim 15, it is unclear what is meant by "Hall effect system".

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-12, 14 and 17-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Dickson Jr., et al.

In regard to claims 1 and 20, Dickson Jr. et al. discloses a connectable tool joints adapted for electrical trans-mission, comprising:

a plurality of threads intermediate primary 25 and secondary 24 shoulders; the tool joints further comprising a cross-sectional area adjacent their respective secondary shoulders that acts cooperatively to withstand an overload condition of the connected tool joints; an opening 21 within the cross-sectional area adjacent the secondary shoulder comprising a volume that is 50% or the secondary shoulder less than what is required to fail adjacent the opening during an overload condition of the tool joint; and wherein, the respective openings are adapted to receive electrical transmission elements, and when the tool joints are connected, the respective elements are substantially aligned to enable electrical transmission across the connected tool joints.

In regard to claim 2, comprising a pin end tool joint.

In regard to claim 3, comprising a box end tool joint

In regard to claim 4, wherein the secondary shoulder 24 comprises a pin end within the pin end tool joint.

In regard to claim 5, wherein the secondary shoulder 24 comprises an internal secondary shoulder within the box end tool joint.

In regard to claim 6, connected to a tubular downhole tool selected from the group consisting of tools that make up a drill string for drilling oil, gas, and geothermal wells.

In regard to claim 7, wherein the cross-sectional area adjacent the secondary shoulders acts with the threads to withstand an overload cooperatively condition of the tool joint.

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In regard to claim 8, wherein the openings comprise an annular trough 21, 20.

In regard to claim 9, wherein the openings comprise a buttressed annular trough (fig. 4).

In regard to claim 10, wherein the openings intersect a passageway 4 leading to the interior of a down-hole tool selected from the group consisting of tools that make up a drill string for drilling oil, gas, and geothermal wells.

In regard to claim 11, wherein the electrical transmission comprises data.

In regard to claim 12, wherein the electrical transmission comprises power.

In regard to claim 14, the transmission elements comprise a direct contact electrical system.

In regard to claim 17, the transmission elements are in communication with subterranean and surface equipment.

In regard to claim 18, the overload condition comprises a torsional load exceeding one-half the yield strength of the tool joints.

In regard to claim 19, the failure of the secondary shoulder 24 adjacent the opening comprises a deformation of at least a portion of the opening (as 24 deforms it will collapse inward towards the interior bore, thereby deforming the groove 21 in the process).

8. Claims 1, 13 and 16 rejected under 35 U.S.C. 102(b) as being anticipated by Lord.

In regard to claim 1, Lord discloses a connectable tool joints adapted for electrical transmission, comprising:

a plurality of threads intermediate primary and secondary 100, 106 shoulders; the tool joints further comprising a cross-sectional area adjacent their respective secondary shoulders that acts cooperatively to withstand an overload condition of the connected tool joints;

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an opening 92, 96 within the cross-sectional area adjacent the secondary shoulder comprising a volume that is 50% or the secondary shoulder less than what is required to fail adjacent the opening during an overload condition of the tool joint; and wherein, the respective openings are adapted to receive electrical transmission elements 82, 86, and when the tool joints are connected, the respective elements are substantially aligned to enable electrical transmission across the connected tool joints.

In regard to claim 13, the electrical transmission elements comprise a magnetic inductive transmission system 40.

In regard to claim 16, the transmission elements comprise a combination of inductive 40 and direct contact (56 to 74) systems.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hall et al. '501, Hall et al. '880, Curlett et al., Cunningham, van der Graaf, Denison et al., Oertle, Papadopoulos, Brandt and Crites et al. all disclose similar couplings common in the art.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Bochna whose telephone number is (703) 306-9040. The examiner can normally be reached on 8-5:30 Monday-Thursday and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (703) 308-2686. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-2168.

A handwritten signature in black ink, appearing to read "David Bochna", with a stylized flourish at the end.

David Bochna
Primary Examiner
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September 9, 2004